PRENTICE COMPUTER CENTRE

UNIVERSITY OF QUEENSLAND, ST. LUCIA, QUEENSLAND, AUSTRALIA. 4067.

NEWSLETTER

N-304 Sept/Oct 1985

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Authorized by the Director of the Computer Centre

COMPUTING SUPPORT CENTRE FOR UNIVERSITY OF QUEENSLAND AND GRIFFITH UNIVERSITY

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Contract Programming & Feasibility Studies	3944
System Status Automatic Answering	3101
General Enquiries & Course Enrolments	3018
Training & Courses Information	3021
Dial–up modem numbers	(300 bps) 3772977
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Consulting

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Central HELP Desk (0800-1600)	CCHELP	3025
Distributed Computing and Network HELP Desk	CCDCHELP	3938
Accounts (0830-1630)		2188
Operations		3212
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Engineering and Maintenance

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Griffith University:

Consulting	7796
Computer Services	7560
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1. Newsletter Summary

- Users are reminded that user projects on the KL10 and the VAX automatically expire on 24.12.85. Please complete a "Change of Expiry Date" form by that date if you intend that your project carry forward until next year. The expiry dates for IBM virtual machines is determined at the time these machines are leased.
- Software problems should be directed to the 'Help Desk' by phone or electronic mail.
- Graphics produced by the SAS statistical package can now be directed to the HP7585 plotter.
- Improvements have been made in the file transfer procedures from the VAX 11/780 to the IBM 3083 system.
- The graphics software for the CALCOMP 936 plotter and the graphics preview program on GIGI terminals has been improved.
- The University Store now stocks 5" floppy disks.
- Geoffrey Dengate has drawn attention to a review of Word Processing packages for IBM-PCs and compatibles.
- Further information is provided on access to CSIRONET.
- It is now possible to transfer electronic mail between DEC computers operated by the Centre and the Australian Computer Science Network (ACSNET).
- Details of courses are provided.

Director
extension 2189

2. Central Computing Facilities – Allan Woodland, ext. 4017

Operations – Sandra Campbell, ext. 3471

Systems Software & Extensions – Ian Burgess, ext. 4074

2.1 Expiry Date on Project Programmer Numbers

On 24 December each year all PPNs on the DEC-10 and UICs on the VAX expire, unless the Centre has been notified in writing that a PPN/UIC is required for another year. *The term "expire" means that all files owned by that PPN, both on-line and off-line, are deleted, any balance of commitment is taken to 0 and PPN and charge code are deleted from the system.*

It is imperative that if you intend to keep using your account for the following year you must complete the "change of expiry date" form, prior to 24 December each year. Separate forms for the KL and VAX accounts are at the Batch Station.

We do this not to make life difficult for you, but merely to keep disk space clear and overheads down. Each year many people leave the University, go away on the Special Studies Programme or finish post graduate research and omit to notify us that they have finished with their account. Expiring accounts is our way, then, of keeping the system operating efficiently for the user's continued benefit.

Userids on the IBM are currently set up with an expiry date nominated by the

client. The date specified remains in force unless altered using the normal AUTH-UQVM form.

Carol Walker
extension 2188

2.2 Software Inquiries

Please direct all inquiries regarding software (including software on trial) to the HELP DESK – extension 3025 or computer NOTE (IBM) or MAIL (VAX, KL) to CCHELP.

Allan Woodland
extension 4017

2.3 SASHPCON – Plotting from SAS/GRAPH on the IBM

SAS/GRAPH users can now obtain hard copies of their graphs via the Prentice Computer Centre's HP7585 plotter.

Firstly, SAS/GRAPH must be instructed to create a file for an HP7585. This is done with a CMS FILEDEF for ddname 'FT14F001' and a 'GOPTIONS DEV= HP7585 NOTERMINAL;' statement. Be sure to use a filetype of 'SASPLOTS' in the filedef.

Secondly, after the file is created it must be converted into a format compatible with the VAX plotter spooler. The 'SASHPCONV fn' command is good for this. (fn is the filename specified in the filedef above.) This will create one or more files with a filetype of HPPLOT.

Thirdly, these 'HPPLOT' files must be sent to the VAX for spooling to the plotter. This can be done manually or via the 'PLOT' command. In either case an account on UQVAX:: is necessary.

Notes: The SAS command '%INCLUDE SETUPHP;' will do the first step (above) including a filedef with filename of 'PLOTFILE'. It also tells SAS/GRAPH of our default pen setup.

If there are any queries please initially contact the HELP DESK on extension 3025.

Porl Gordon
extension 3022

2.4 Sending Files from UQVAX:: to UQVM

The procedure IBMSND, which has been available on UQVAX:: for some time now, has been upgraded to accommodate wildcard characters "*" and "%" in the VAX/VMS file specification. Also, the UQVM:: file specification elements are now truncated to 8 characters. This is to prevent a file format problem which occurred when UQVAX:: files having names of 9 characters could not be received on UQVM::. Type HELP IBMSND for detailed information and examples of its use.

Bryan Claire
extension 4078

2.5 Graphics Software Update

2.5.1 Extensions to CALF77 Plotting Library — Opening Windows

Those of you who have had the misfortune to have a plot go out of bounds on the Calcomp-936 (PLT1) will have noticed that some nasty things occur when this happens. Combine this with the fact that the BOUNDS switch to the PLOTIN call never really worked and you have the potential for a few false starts before you get a nice pretty plot.

In order to overcome these shortcomings, it was decided to fix the BOUNDS switch, and to implement software windowing for the Calcomp, i.e. if the pen tries to move out of the limits of the paper, the software keeps track of where the pen thinks it is, and when it moves back on to the paper (if ever) plotting is continued as normal.

While we were in this creative frenzy, we decided to extend this idea and add a general WINDOW routine to CALF77 which allows you to define a window anywhere on the paper/screen (or off the paper/screen if you really want to). Only the parts of the plot that are "visible" through this window will appear on the final plot.

Now for the details.

Changes to PLOTIN switches

Bounds checking

As mentioned above, the '/BOUNDS' switch never worked for the Calcomp-936, so if the pen went out of bounds you weren't warned and your plot was messed up. Not any more! This switch now works for all hard-copy devices supported by CALF77 i.e. Calcomp-936 and Hewlett-Packard plotters (including those attached to your terminal). If the pen goes out of bounds and you have set this switch, the program will halt and display a message telling you where the pen was moving to when the out of bounds condition occurred. If the switch is not set when the pen moves out of bounds, the plot will be windowed.

Windowing

Two new switches, '/XYMIN' and '/XYMAX', have been added which allow you to define a window for your plot. The full syntax for the switches is '/XYMIN: xmin,ymin' and '/XYMAX:xmax,ymax', where xmin,ymin are the x-y co-ordinates in mm. of the lower left corner of the window, and xmax,ymax are the co-ordinates of the upper right corner of the window. The co-ordinates may be integer or real values in the range 0.0 to 9999.9 and XYMIN must be less than XYMAX.

The switches may be given in any order and if neither is given default to predetermined values. These defaults are as follows:

- For HP plotters, the default is the size of the currently loaded paper
- For Tektronix and GiGi terminals the default is the screen size
- For for the Calcomp the default is 0.0,0.0 for XYMIN and 1000.0,932.0 for XYMAX

If your output is to go to a hard-copy device and XYMIN or XYMAX is set outside the limits of the current paper size, you are warned and the program continues.

'/XMAX' for the Calcomp

The advent of XYMIN and XYMAX has made the '/XMAX' switch obsolete and so this switch is no longer implemented.

A new CALF77 procedure – WINDOW

This procedure allows you to define a "window" through which part (or all) of your plot may appear. Those parts of the plot that lie outside this window are not physically drawn on the paper or screen.

Calls to WINDOW may be used in addition to the switches XYMIN and XYMAX (above) to define a number of windows during the course of your plot, however, only one window at a time is in effect.

The syntax of the WINDOW call is –

CALL WINDOW(xmin, ymin, xmax, ymax)

where xmin,ymin are the co-ordinates in mm. of the lower left corner of the window and xmax,ymax are the co-ordinates of the upper right corner. Please note that these co-ordinates are NOT relative to the origin set at the time the WINDOW call is made, but are relative to the origin set at initialisation.

For hard-copy devices you are warned if either corner of the window is set off the currently loaded paper and if the '/BOUNDS' switch has been set, bounds checking is performed for the current window.

2.5.2 VUEPLT – Keeping GiGi Pretty

People who use GiGi terminals to run VUEPLT, the graphics preview program, will know what happens if a line moves to a co-ordinate off the screen - you get a mess. This is because co-ordinates outside the GiGi's range are "wrapped-around" and reappear on the screen at some indeterminate location thus upsetting the screen for the rest of the plot.

Salvation is at hand!

As a result of our windowing efforts above, it has been fairly easy to extend this principle for use in VUEPLT. If the output from VUEPLT is to go to a GiGi terminal, a window is automatically set equal to the size of the screen, and any lines that move out of this window are clipped thereby preventing the former horrendous effects.

A second problem with VUEPLT has also been solved. Prior to this change, if you had a Calcomp plot file and did a series of repeat plots i.e. you ran the plot through VUEPLT a number of times without exiting, each repeated plot would be moved further and further from its correct starting point.

The reasons why this happened are fairly simple, suffice to say that the problem no longer occurs.

And that's it!

If you want to refresh your memories about CALF77 or VUEPLT, there is a series of articles in the June 1984 P.C.C. newsletter (N-289) written by those masters of the graphic arts, Mark Williams and Noela Meier. These will tell you all you want to know (and probably more) about the two packages.

As a reminder, the P.C.C. newsletters are held online on the IBM for easy access. After logging on, just enter NEWSL, which will list all the newsletters currently available and how to get at them. An index of subjects discussed in the previous years newsletters is available on UQKL10 and may be examined by entering HELP NEWSL.

Finally, if you have any problems, suggestions or detect any bugs, please let me know.

Barry Costin
extension 3022

3. Distributed Computing – Geoff Dengate, ext. 3391.

3.1 Floppies to Go

Undoubtedly, the personal computer explosion is the biggest boom ever to the floppy disk industry. But somehow, nobody ever has enough floppies. How often have you gone looking for a blank disk, only to find that there aren't any?

Well, to make life simpler for you, the University Store now stocks 5¼" floppies. The exact details are:

Memorex Double Sided Double Density 5¼" flexible disk

Store Catalogue No.:	16667
Unit of Issue:	box of 10
Cost:	$26.20

While this won't stop you from running out of disks, at least it will be a quick and simple procedure to get some more.

Geoffrey Dengate
extension 3391

3.2 User Groups on Campus

I regularly receive calls from members of the University community requesting information about user groups; if they exist, contacts within the group, location and frequency of meetings, etc.

The purpose of this article is to request information from the various user groups on campus.

If the following information is forwarded to me I will ensure it is published in a subsequent newsletter.

User Group Name:
Contact Name:
Contact Phone:
Location of Meeting:
Frequency of Meeting:
Other Relevant Information:

Hopefully this will result in more people being aware of the existence of these user groups, and hence participate in the useful exchange of knowledge which takes place at meetings.

Geoffrey Dengate
extension 3391

3.3 Word Processing Packages

The USA edition of 'PC Magazine', Volume 4 Number 7, August 20 1985, contains a very good review and comparison of the most popular 18 Word Processing packages for the IBM-PC and compatibles.

The article is certainly recommended reading for anybody trying to choose a WP package.

Geoffrey Dengate
extension 3391

4. Engineering & Communications Services — Graham Rees, ext. 3288

4.1 The Future of CSIRONET Access

(Note that this service is not yet available due to a lack of appropriate equipment within the Computer Centre. It is hoped to offer this service early 1986. When offered it will function as described here.)

As reported in newsletter N-303, the current CSIRONET gateway, based on the ANF-10 network, was to be removed as from the 1-DEC-85. This is now only half true. Due to the demise of CSIRO's Cyber-76, the file transfer facility through the ANF-10 gateway will not be available after 1-DEC-85. However, due to serious problems with the new VAX-11/780 based gateway for interactive use, we are now forced to maintain the current ANF-10 based gateway indefinitely. (Which is accessible from all hosts as node CSIRO).

The file transfer facility on the VAX, will become the standard mechanism for this sort of access. Development work will mean that a transparent mechanism should enable users to transfer files from any node on the network, to CSIRONET, (and vice-versa), without the need for a VAX account. Further details will be published as they come to hand. In the meantime, further information on the new file transfer facility, can be gained by printing the file

CN$DEVICE:[CSIRONET]CNFTS.DOC.

With this setup, we should be able to provide (in the near future):

1. Terminal access to CSIRO from any host.
2. Reliable file transfer to/from CSIRONET from any host.
3. Terminal access to ANF-10 hosts via CSIRO host BGU.
4. Terminal access to DECNET hosts via CSIRO host BXU.

Some updates on the article in newsletter N-303:

1. You no longer need to type @CN$DEVICE:[CSIRONET]CNLOG, as this line has now been placed into the SYSLOGIN.COM file.
2. Information on the current status of file transfers can be obtained by typing the NSTATUS command.
3. Information of the status of past events on the file transfer system can be obtained by typing the FACTS command.

Any further queries should be addressed to me, or by sending mail to either DANNY on the KL, or CCDANNY on the VAX.

Danny Smith
extension 4079

4.2 New Network Mail Facilities

An X.25 node has recently been installed in the Computer Science Department. It is linked to the AUSTPAC gateway in the Computer Centre.

It is now possible to transfer mail between the DEC computers operated by the Prentice Computer Centre and hosts on ACSNET.

DEC-10 users can send mail to users on ACSNET hosts by specifying a "To" address of the form:

user%ACShost@CSUNIX

Users of the VAX/VMS systems connected to the campus network by DECNET (including the VAX-11/780 UQVAX) may send mail to users on ACSNET hosts by specifying a "To" address of the form:

UQKL10::"user%ACShost%CSUNIX"

CSUNIX is the name given to the Computer Science Department's UNIX system which acts as a mail gateway to ACSNET. The address form used by DEC-10 users causes the mail to be relayed to the ACSNET host through CSUNIX. The address form used by VAX/VMS users causes the mail to be sent firstly to UQKL10 then relayed to CSUNIX then to the ACSNET host.

Users on UNIX systems connected to ACSNET can send mail to users on the DEC-10 by a command of the form:

mail user@uqkl10

and to users on the VAX-11/780 using:

mail user%uqvax@uqkl10

(Note in both cases "uqkl10" should be in *lower* case).

The "user" portion for mail to a DEC-10 user may be a registered user name (not recommended since user names are not guaranteed to be unique) or a ppn. Note though that the ppn must be in a special form since the standard form of specifying a ppn causes confusion in many UNIX mailers. The special form may be generated as follows:

1. Take the programmer number (the second number of the ppn) and add enough 0's on the left to make six digits.
2. Add the project number (the first number of the ppn) to the left.

An example might make this clear. Suppose the ppn is [123,4] then step 1 yields 000004 (add zeroes on the left to make six digits) and step 2 yields 123000004.

Replies

DEC-10 users should be able to use the MAIL REPLY command to reply to mail received from ACSNET.

VAX/VMS users at the time of writing should NOT attempt to REPLY to mail received from ACSNET hosts since the VAX/VMS mailer is not given sufficient information to be able to correctly construct a return address. A solution to this

problem is being sought.

UNIX systems whose mail programs support a REPLY command should be able to reply to mail from the DEC-10 and the VAX.

Errors

If mail cannot be delivered error notifications should be returned to the sender of the mail regardless of the machine the mail was sent from.

Warning

The VAX mail system (VMS Version 3) converts all characters in the "To" specification to upper case. The CSUNIX mail gateway converts them to lower case to conform with the UNIX convention that user names are lower case. This may cause problems in some situations. If so please contact the author.

Problems with the use of this facility may be discussed with Tim Roper, Department of Computer Science (ext. 2875) or

Arthur Hartwig
extension 4079

5. Applications Development – Tony Bird, ext. 3944

5.1 Information Concerning Courses

Enrolments for all courses may be made by phoning extension 3018.

The following schedule of courses has been arranged for the period November – December, 1985:

November

Introduction to PDP-10 (GU)	November 4-7 4 half days 9-12 each day
Introduction to IBM	November 4-7 4 half days 1-4 each day
Using your PC on the Network	November 8 1 half day 9-12
RUNOFF	November 11-15 5 half days 9-12 each day
Conversion to IBM (GU)	November 12-14 3 half days 9-12 each day
SAS	November 11-15 5 half days 1-4 each day
SQL	November 18-22 5 half days 9-12 each day
SPSS	November 18-22 5 half days 1-4.30 each day
SQL (GU)	November 25-29 5 half days 1-4 each day
1022	November 25-29 5 half days 1-4 each day

Introduction to PDP-10	November 26-29 4 half days 9-12 each day

December

1022 (GU)	December 2-6 5 half days 9-12 each day
Introduction to IBM	December 2-5 4 half days 1-4 each day
Using your PC on the Network	December 5 1 half day 9-12
Elementary FORTRAN Programming	December 9-13 5 full days 9-12 + 1-4 each day
Elementary BASIC Programming	December 16-20 5 half days 9-12 each day
SCRIPT	December 16-20 5 half days 1-4 each day

General Notes:

1. Intending users of the PDP-10 system must be familiar with the content of the course *Introduction to PDP-10* (i.e. terminal usage, file-management, editing) before attending other PDP-10 courses.
2. In corresponding fashion, for the IBM system, users should have attended either *Conversion to IBM* (for previous PDP-10 users) or *Introduction to IBM* (for completely new users) before attending other IBM courses.
3. Courses held at St Lucia (with the exception of CAD/CAM courses) are conducted in the Computer Centre's teaching area near the Physics Annexe. Courses designated (GU) are held in Room 1.49, East Wing, SIA Building at Griffith University.
4. Staff and post-graduate students are admitted free to courses; all others pay at the rate of $10.00 per half-day session.
5. Enrolments for all courses may be made by phoning ext. 3018.

Barry Maher
extension 3021

6. Miscellaneous

6.1 Departmental Equipment for Sale

Two ADM5 terminals in near-new condition. $400 (o.n.o.) each.

Cicada 300 baud modem. Unused. $250 (o.n.o.).

Contact Sylvia Williams, School of External Studies and Continuing Education, ext. 2380.